

AMENDMENTS TO THE SPECIFICATION:

Page 1 – Please replace the last paragraph, bridging to page 2, line 7, with the amended paragraph as follows:

The demands for reduction in chip area with respect to memory LSI, system LSI, and other semiconductor devices, are increasing each year, coupled with the miniaturization of information communications equipment in recent years. It is desired, therefore, that memory cell areas be reduced with the conventional electrical characteristics of transistors being maintained. Vertical transistors are employed as an approach to implementing such reduction in cell area. Conventional vertical transistors include: a type in which, as disclosed in Japanese Patent Laid-open No. 2001-320031, a hole is formed in the thin film formed on a silicon substrate and a vertical transistor has its channel embedded in the hole; a type in which, as disclosed in Japanese Patent Laid-open No. 10-107286, a hole is formed in a silicon substrate and a side of the hole is used as a channel; and a type in which, as disclosed in Japanese Patent Laid-open No. 10-326879, a protrusion of silicene silicon is formed on a silicon substrate and used as a channel.

Page 6 – Please replace the last paragraph, bridging to page 7, line 13, with the amended paragraph as follows:

First, a cross-sectional structure of a semiconductor device in a first embodiment is shown in Fig. 1. The structure is composed of a lateral transistor 11 disposed on a silicon substrate 1, and a vertical transistor 21 disposed on the lateral transistor 11. The lateral transistor 11 includes at least, as its constituting elements, a gate electrode 12, a gate oxide film 13, element isolation films 14, sidewalls 15, contacts 16, and a lower layer insulation film 17. The lateral transistor 11 can be of a

type similar to a general MOS transistor mass-produced in great numbers at present. In addition, for components of a lateral transistor, there are already proposed a great number of materials, processes, and structures, and any thereof can be employed for the constituting elements of the lateral transistor 11. The vertical transistor 21 includes at least a gate electrode 22, a gate oxide film 23, a silicon tower 24, wiring 25a, 25b, a contact 26, an upper layer insulation film 27, and a pedestal 29.

Page 10 – Please replace the second full paragraph with the amended paragraph as follows:

The silicon tower 24 has a part thereof constructed of impurity diffusion regions 28a and 28b and another part sandwiched between them which forms so as to sandwich a channel region 28c, and wherein a source-to-drain region of vertical transistor 21 is thus formed. It is desirable that boron be contained as an impurity of the impurity diffusion regions 28a and 28b to make the vertical transistor into a p-channel field-effect transistor, and that phosphor be contained to make the vertical transistor into an n-channel field-effect transistor. In addition, using a high-fusion-point metal (for example, tungsten or molybdenum) for the wiring 25a and the contact 26 is desirable in terms of thermal resistance and reduction in electrical resistance.